

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for providing Internet Protocol~~[[~~-type]] mobility service for a mobile station in a packet radio network, the method comprising:
installing into the packet radio network a foreign agent having an ~~IP~~ Internet Protocol address;
integrating the foreign agent into a first support node included in the ~~radio-packet~~ packet radio network;
providing a care-of-address for the mobile station; and
using the ~~IP~~ Internet Protocol address of, or provided by, the foreign agent as the mobile station's care-of-address,
wherein, the packet radio network is coupled to a data network implementing Internet Protocol.
2. (Previously Presented) The method of claim 1, wherein the first support node is an access node.
3. (Previously Presented) The method of claim 1, wherein the first support node is a gateway node.
4. (Cancelled)
5. (Currently Amended) The method of claim 1, further comprising receiving an access point name from the mobile station, in connection with an attach procedure, the access point name indicating a network operator and a Mobile ~~IP~~ Internet Protocol address.
6. (Previously Presented) The method of claim 5, wherein the access point name is received by an access node and the method further comprises sending the access point name received from the mobile station to a gateway node.

7. (Currently Amended) The method of claim 1, further comprising storing information concerning whether the mobile station in question is allowed to use the ~~IP-type~~ Internet Protocol mobility service in a register of the packet radio network.

8. (Previously Presented) The method of claim 1, further comprising receiving information from the mobile station indicating whether the mobile station requests use of the Internet Protocol-type mobility service.

9. (Currently Amended) An arrangement for providing Internet Protocol ~~type~~ mobility service for a mobile station, the arrangement comprising:

at least two support nodes, wherein at least one support node is an access node, and at least one support node is a gateway node; and

a foreign agent having an ~~IP~~ Internet Protocol address being integrated into one of the support nodes;

wherein, the ~~IP~~ Internet Protocol address of, or provided by, the foreign agent is also the mobile station's care-of-address.

10. (Previously Presented) The arrangement of claim 9, wherein the foreign agent is integrated into the access node.

11. (Previously Presented) The arrangement of claim 9, wherein the foreign agent is integrated into the gateway node.

12. (Currently Amended) A support node for a packet radio network, arranged to provide mobility service for a mobile station, the support node comprising:

an integrated foreign agent having an ~~IP~~ Internet Protocol address,

wherein the support node supports at least an ~~IP-type~~ Internet Protocol ~~protocol~~ and is adapted to use the ~~[[IP]]~~ Internet Protocol address of, or provided by, the foreign agent as the mobile station's care-of-address and wherein, the packet radio network is coupled to a data network implementing Internet Protocol.

13. (Previously Presented) The method of claim 7, wherein the register of the packet radio network is a Home Location Register.

14. (Currently Amended The method of claim 8, wherein the receiving information from the mobile station indicating whether the mobile station requests use of the Internet Protocol[[-type]] mobility service is performed in connection with mobile station registration.